

A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICES REGARDING BODY MECHANICS AND HANDLING OF PATIENT AMONG MULTIPURPOSE HEALTH WORKERS IN SELECTED HOSPITALS OF SANGLI,,MIRAJ, KUPWAD CORPORATION AREA.

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Abstract

Proper body mechanics are vitally important for keeping our spine healthy. And it's easy to incorporate these principals into our daily life. Poor body mechanics are often the cause of back problems. When we don't move correctly and safely, the spine is subjected to abnormal stresses that over time can lead to degeneration of spinal structures like discs and joints, injury, and unnecessary wear and tear. A study was conducted on "A study to assess the effectiveness of planned teaching programme on knowledge and practices regarding body mechanics and handling of patient among multipurpose health workers in selected hospitals of Sangli ,Miraj, kupwad corporation area." The objective was 1. To assess the existing knowledge regarding body mechanics and handling of the patient.2. To assess the practices regarding body mechanics handling of the patient.3.To compare pre-test and post-test knowledge and practices score.4.To assess the co-relation between the knowledge and practices regarding body mechanics and handling of patient.

Materials and Methods : A Pre-experimental one group pre-test and post test design was used. Quantitative research approach was used. 50 multipurpose health worker were selected by using non-probability convenient sampling method. The tool consists of section -I includes the demographic data and section- II knowledge and practices regarding body mechanics and handling of patient. The reliability of the tool for knowledge score was done by using split half method and reliability of practices score was done by using inter-rater method. The result was found to be > 0.7. A pilot study was conducted to check the feasibility and practicability of the statement.

Result - P value on knowledge on body mechanics in MPHWS was 0 i.e., less than 0.05, that shows planned teaching program on knowledge regarding body mechanics was effective. R value is 0.3540 at p value was 0.0023, showed that there was positive co-relation between knowledge with practices on body mechanics and handling of patient.

Conclusion:

The conclusion drawn from the present study is that the planned teaching programme provided to the multipurpose healthcare workers had a great impact on their knowledge regarding body mechanics and patient handling. The teaching and demonstration of body mechanics is very much important to maintain the quality of patient care by health workers to avoid body injuries.

Keywords: Knowledge, Practice, Assess, Body mechanics, Multipurpose health worker.

Introduction

Body mechanics is a term used to describe the ways we move as we go about our daily lives. It includes how we hold our bodies when we sit, stand, lift, carry, bend, and sleep. Poor body mechanics are often the cause of back problems. When we don't move correctly and safely, the spine is subjected to abnormal stresses that over time can lead to degeneration of spinal structures like discs and joints, injury, and unnecessary wear and tear. That is why it is so important to learn the principals of proper body mechanics.

Proper body mechanics are vitally important for keeping our spine healthy. And it's easy to incorporate these principals into our daily life. It may seem unnatural at first, but if we keep at it, they will easily become routine and our back will thank us for it

Efforts to reduce injuries associated with patient handling are often based on tradition and personal experience rather than scientific evidence. The purpose of this is to summarize current evidence for interventions, designed to reduce caregiver injuries, a significant problem for decades. Despite strong evidence, published over three decades, the most commonly used strategies have strong evidence that demonstrate they are ineffective. There is a growing body of evidence to support newer intervention that are effective or show promise in reducing Musculo skeletal pain and injuries in care providers.

Body mechanics will be more effective in nurses if they know how to use it as well as

practice it in correct way while performing procedures that require its use. This study was a

cross sectional study using a set of questionnaires, carried out to determine the knowledge

and practice of body mechanics techniques among nurses.

In this study it was found out that 100 percent of nurses have the knowledge towards body mechanics techniques. 68.2 percent of them aware that practicing correct body mechanics techniques was important of them and 31.8 percent were not. The findings of the study indicated that majority of nurses have the knowledge about body mechanics techniques but less practicing on it. However, some of them still lack knowledge caused them did not practice correct body mechanics techniques. While in clinical area staff nurses should be more aware and know the knowledge of body mechanics techniques as well as practicing it for their own good.

NEED FOR THE STUDY

Great body mechanics implies utilizing the most secure and most effective strategies to lift and move patients or hefty things. Productivity is a higher priority than strength. The vast majority know that when they twist or lift something, they should twist their knees. While it is Critical to twist the knees, consideration should likewise be paid to the situation of spine. To keep away from injury, either right now of lifting something or, almost certain, because of helpless body mechanics over the long haul, care should be taken to keep up the impartial spine. An impartial spine implies that the three typical bends at the neck, center and lower back-are kept up. When seen from an external perspective, the back gazes directly with an empty in the low back. Regular exercises can put fix weight on the spine. Figuring out how to utilize great body mechanics will limit these anxieties and decline the rate of back and neck wounds. Great body mechanics are for the work site as well as ought to be utilized consistently.

Musculoskeletal issues are a significant general medical condition. Among them are back conditions, a mind-boggling issue for certain word related gatherings, like multipurpose health workers. Truly, back torment has been a significant protest, and multipurpose health workers experts are one at the most noteworthy danger. Danger factors for back agony can be both of individual roots or identified with the work place. The primary word related danger factors are lifting and treatment of patients, awkward and fixed stances, lacking hardware, ill-advised work place plan, substantial actual work and insufficient work organization

An investigation directed by J An Engel et al, on the subject of business-related danger factors for musculoskeletal objections in the multipurpose health workers calling; 'aftereffects of a poll overview tracked down that a huge extent of the subjects routinely had back protests 36% yet additionally had arm or neck 30% and leg grumblings 16%. Practically all respondents (89%) considered multipurpose health workers fill in as actual demanding.

Assignments are perceived as the essential driver for musculoskeletal problems among the multipurpose health workers labor force. Of essential concern are back wounds and shoulder strains. Various examinations have reported a high predominance of back, knee, shoulder and other joint agony among medical

care laborers. In light of laborers' remuneration claims for back wounds, multipurpose health workers assistants and authorized down to earth attendants (LPNs) positioned fifth and ninth, separately, among all occupations as those most in danger for such wounds. Multipurpose health workers associates are at a higher danger for back wounds than development workers, loggers, material overseers and workers. Most projects for the anticipation of back and joint injury to medical care staff will in general zero in on appropriate lifting strategies, body mechanics and back care. Patient taking care of can both be seriously weakening. Lifting and moving of patients are the most normally announced reasons for back agony and knee and shoulder injury among medical services laborers.

Research Methodology

Problem statement:

“A study to assess the effectiveness of planned teaching programme on knowledge and practices regarding body mechanics and handling of patient among multipurpose health workers in selected hospitals of Sangli, Miraj, Kupwad corporation area.”

Objectives of the study:

1. To assess the existing knowledge regarding body mechanics and handling of the patient.
2. To assess the practices regarding body mechanics handling of the patient.
3. To compare pre-test and post-test knowledge and practices score.
4. To assess the co-relation between the knowledge and practices regarding body mechanics and handling of patient.

Hypotheses:

H1 – There is significant difference between pre- test and post- test knowledge and practice score regarding body mechanics & handling of patient.

Variables under study:

dependent variables: Knowledge and practice regarding body mechanics & handling of patient.

independent variables: Planned teaching program regarding body mechanics & handling of patient.

Research setting

The research study was conducted in selected hospitals of Sangli, Miraj, Kupwad corporation area.

Sample:

Multipurpose health workers of selected hospitals of Sangli, Miraj, Kupwad corporation area.

Sampling method:

Non –probability convenient sampling method were used for the present study.

Research tool has two sections :

Section I - Socio-demographic variables.

Section II : - knowledge regarding body mechanics & handling of patient

Section III A ; practices regarding body mechanics & handling of patient (Transferring a helpless client from bed to stretcher)

Section III B; practices regarding body mechanics & handling of patient (Assisting a client from bed to wheelchair)

Reliability:

The reliability of the tool was determined by administering the multiple-choice questionnaire test to 10 samples. The reliability coefficient ‘r’ of the multiple choice questionnaire was 0.85

The reliability for practices of body mechanics was used and r value was 0.80

So both the ‘r’ values were more than 0.7, so both tools was found to be reliable.

Pilot Study:

Pilot study was conducted in Paramshetti hospital Miraj from 15 April 2021 to 21 April 2021.

-Data dissemination – It will be done in journal , conference and workshop.

ANALYSIS AND INTERPRETATION OF DATA

Objectives of the study:

1. To assess the existing knowledge regarding body mechanics and handling of the patient.
2. To assess the practices regarding body mechanics handling of the patient.

3. To compare pre-test and post-test knowledge and practices score.
4. To assess the co-relation between the knowledge and practices regarding body mechanics and handling of patient.

Hypotheses:

H1 – There is significant difference between pre- test and post- test knowledge and practice score regarding

The analysis and interpretation of findings are given in the following section.

SECTION –I

Frequency and percentage distribution of demographic data of MPHWS.

SECTION II –

Frequency and percentage distribution of MPHWS according to existing knowledge score on body mechanics and handling of patient.

SECTION III –

Frequency and percentage distribution of MPHWS according to existing practices score on body mechanics and handling of patient.

SECTION IV –

Frequency and percentage distribution of MPHWS according to post test knowledge score on body mechanics and handling of patient.

SECTION V-

Frequency and percentage distribution of MPHWS according to post test practices score on body mechanics and handling of patient

SECTION VI –

Comparison of pre-test and post test knowledge on body mechanics in MPHWS

SECTION VII –

Comparison of pre-test and post test practices on body mechanic & handling of patients in MPHWS

SECTION VIII –

Co-relation between pre-test knowledge with practices on body mechanics and handling of patient.

SECTION I:-

TABLE NO. 1

FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES

N=50

Sr. No	Demographic Variables	Frequency	Percentage
1.	Age in years		
	19 - 30yrs	21	42%
	31 - 40 yrs	29	58%
2.	Gender		
	Female	17	34%
	Male	33	66%
3.	Education		
	Primary	22	44%

	Secondary	28	56%
4.	Work Experience		
	less than 5yrs	20	40%
	6 - 15 yrs	18	36%
	16 - 25yrs	12	24%
5.	Source of Information		
	No	15	30%
	Yes	35	70%

TABLE NO.1. Shows that maximum samples (58 %) belong to the group 30-40 years. 66% sample belongs to male gender. 56% sample belong to secondary education. 40% samples belong to less than 5 year experience. 70% samples had received information on body mechanics and handling of patient.

SECTION II

TABLE NO 2

FREQUENCY AND PERCENTAGE DISTRIBUTION OF MPHWS ACCORDING TO EXISTING KNOWLEDGE SCORE ON BODY MECHANICS AND HANDLING OF PATIENT.

N=50

Level of knowledge	Frequency	Percentage
Poor	6	12%
Average	44	88%

Table no.2 shows 06 (12%) had poor knowledge, 44(88%) had average knowledge and none of them had good knowledge in pre-test.

SECTION III –

TABLE NO 3

FREQUENCY AND PERCENTAGE DISTRIBUTION OF MPHWS ACCORDING TO EXISTING PRACTICES SCORE ON BODY MECHANICS AND HANDLING OF PATIENT.

N=50

Sr. No	Practices	Correct		Incorrect	
		Frequency	Percentage	Frequency	Percentage
1	Transferring a helpless client from bed to stretcher	196	74	104	26
2	Assisting a client from bed to wheelchair.	185	46.23	215	53.75

Table no. 3 showed 196 MPHWS had correct practices regarding Transferring a helpless client from bed to stretcher whereas 104 MPHWS had incorrect practices regarding to transferring a helpless client from bed to stretcher. 185 MPHWS had correct practices regarding to assisting a client from bed to wheelchair. 215 MPHWS had incorrect practices regarding to assisting a client from bed to wheelchair.

SECTION IV –

TABLE NO 4

FREQUENCY AND PERCENTAGE DISTRIBUTION OF MPHWS ACCORDING TO POST TEST KNOWLEDGE SCORE ON BODY MECHANICS AND HANDLING OF PATIENT.

N=50

Level of Knowledge	Frequency	Percentage
Average	17	34
Good	33	66

Table no 4. In post-test none of them had poor knowledge, 17(34%) workers had average knowledge and 33(66%) workers had good knowledge

SECTION V-

TABLE NO 5
FREQUENCY AND PERCENTAGE OF POST-TEST PRACTICES ON TRANSFERRING A HELPLESS CLIENT FROM BED TO STRETCHER AND ASSISTING A CLIENT FROM BED TO WHEELCHAIR.

N=50

Sr. No	Practices	Correct		Incorrect	
		Frequency	Percentage	Frequency	Percentage
1	Transferring a helpless client from bed to stretcher	185	46.23	215	53.75
2	Assisting a client from bed to wheelchair.	295	73.75	105	26.15

Table no. 5 showed 185 MPHWS had correct practices regarding Transferring a helpless client from bed to stretcher whereas 295 MPHWS had correct practices regarding assisting a client from bed to wheelchair.

SECTION VI

TABLE NO 6

COMPARISON OF PRE-TEST AND POST TEST KNOWLEDGE ON BODY MECHANICS IN MPHWS

N=50

Knowledge	Mean	S.D	T value	P value	Significant
Pre Test	6.72	1.25	18.81	0	* S
Post Test	11.12	1.19			

Above table shows that P value on knowledge on body mechanics in MPHWS was 0 i.e. less than 0.05, that shows planned teaching program on knowledge regarding body mechanics was effective.

**SECTION- VII
TABLE NO 7**

COMPARISON OF PRE-TEST AND POST TEST PRACTICES ON BODY MECHANICS IN MPH.W.

N=50

Practices	Test	Mean	S.D	t value	p value
Transfer helpless client from bed to stretcher	Pre Test	3.7	1.13	14.11	0
	Post Test	5.92	0.53		
Assist a client from bed to wheelchair	Pre Test	3.7	1.39	12.02	0
	Post Test	5.90	0.76		

Above table shows that P value of practices Transfer helpless client from bed to stretcher was 0 and p value of Assist a client from bed to wheelchair was also 0 . Both p value was less than 0.05 that show planned teaching was effective.

**SECTION-VIII
TABLE NO 8**

CO-RELATION BETWEEN PRE-TEST KNOWLEDGE WITH PRACTICES ON BODY MECHANICS AND HANDLING OF PATIENT.

N=50

Knowledge	Practices		df	r value	P value	Significance
	Correct	Incorrect				
Poor	11	12	2	0.3540	0.0023	S*
Average	13	07				
Good	4	3				

R value is 0. 3540 at p value was 0.00 23, showed that there was positive co-relation between knowledge with practices on body mechanics and handling of patient

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

SECTION –I

1. **Age:** According to the age of multipurpose healthcare workers, 42% of them were of age 19-30 yrs and 58% of them were of age 31-40 yrs.
2. **Gender:** According to the sex of multipurpose healthcare workers, 34% of them were Female and 66% of them were Male.
3. **Education:** According to education perceived, 44% workers perceived primary education & 56% workers perceived secondary education.
4. **Work Experience:** According to work experience in health care sector, 40% of the workers have experience of less than 5 yrs, 36% workers have experience of 6-15 yrs & 24% workers have experience of 16-25 yrs.
5. **Source of Information:** 30% of the workers were having no source of information and 70% workers received information regarding body mechanics and handling of patients.

SECTION II –

Deals with Frequency and percentage distribution of pre -test level of knowledge of MPW

In the demographic data of Pre-test level of knowledge in multipurpose healthcare workers show that 12% of the workers have poor knowledge, 88% have average knowledge but none of the multipurpose healthcare workers have good knowledge regarding body mechanics and patient handling.

SECTION III –

Deals with Frequency and percentage of pre-test practices body mechanics and handling of patient in MPHW

In the demographic data of Pre-test practices body mechanics and handling of patient in multipurpose healthcare workers show that 26% of the MPHW had correct practices regarding Transferring a helpless client from bed to stretcher 46.23% of the MPHW had correct practices regarding to assisting a client from bed to wheelchair.

SECTION IV –

Deals with Frequency and percentage distribution of post -test level of knowledge of MPHW

In the demographic data of Frequency and percentage distribution of post -test level of knowledge of multipurpose healthcare workers show that 34% of the multipurpose healthcare worker acquired Average knowledge regarding body mechanics and patient handling after planned teaching programme and 66% of the multipurpose healthcare worker acquired Good knowledge regarding body mechanics and patient handling after planned teaching programme.

SECTION V –

Deals with frequency and percentage of post-test practices on transferring a helpless client from bed to stretcher and assisting a client from bed to wheelchair.

In the demographic data of Frequency and percentage of post-test practices on transferring a helpless client from bed to stretcher and assisting a client from bed to wheelchair shows that 46.23% of the multipurpose healthcare worker had correct practices regarding transferring a helpless client from bed to stretcher and 73.75% of the multipurpose healthcare worker had correct practices regarding to assisting a client from bed to wheelchair.

SECTION VI –

Deals with comparison of pre-test and post test knowledge on body mechanics in MPHW.

The demographic data of pre-test knowledge on body mechanics in MPHW shows that 12% of the workers had poor knowledge, 88% had average knowledge but none of the multipurpose healthcare workers have good knowledge regarding body mechanics and patient handling. The demographic data of post-test knowledge on body mechanics in MPHW shows that 34% of the multipurpose healthcare worker acquired Average knowledge regarding body mechanics and patient handling after planned teaching programme & 66% of the multipurpose healthcare worker acquired Good knowledge regarding body mechanics and patient handling after planned teaching programme. The test statistics value of the unpaired t test was 18.81 with p value 0, which is less than 0.5. Shows that the planned teaching program on knowledge regarding body mechanics was effective.

SECTION VII –

Deals with comparison of pre-test and post test practices on body mechanics in MPHW.

- **For Transfer of helpless client from bed to stretcher:**
 - The demographic data pre-test practices body mechanics and handling of patient in MPHW shows 26% of the MPHW had correct practices regarding Transferring a helpless client from bed to stretcher & the post-test practices body mechanics and handling of patient in MPHW shows 46.23% of the multipurpose healthcare worker had correct practices regarding Transferring a helpless client from bed to stretcher.
 - The test statistics value of the unpaired t test was 14.11 with p value 0, which is less than 0.5. Shows that the planned teaching program on practices regarding body mechanics was effective.

- **To Assist a client from bed to wheelchair**
 - The demographic data pre-test practices body mechanics and handling of patient in MPHW shows 46.23% of the MPHW had correct practices regarding Transferring a helpless client from bed to stretcher & the post-test practices body mechanics and handling of patient in MPHW shows 73.75% of the multipurpose healthcare worker had correct practices regarding Transferring a helpless client from bed to stretcher.
 - The test statistics value of the unpaired t test was 12.02 with p value 0, which is less than 0.5. Shows that the planned teaching program on practices regarding body mechanics was effective.

SECTION VII –

R value is 0.3540 at p value was 0.0023 which is less than 0.5, showed that there was positive co-relation between knowledge with practices on body mechanics and handling of patient

DISCUSSION:-

The present study was conducted to assess the effectiveness of planned teaching program on knowledge and practices regarding body mechanics & handling of patient among Multipurpose Health Workers in selected hospitals of Sangli, Miraj, Kupwad corporation area. The sample were selected as non-probability purposive sample method, the sample size were 50 multipurpose health worker in selected hospitals of Sangli, Miraj, Kupwad corporation area. In our study we found that there is significant improvement in the knowledge of multipurpose health worker regarding body mechanics and patient handling with the planned teaching program me provided to them.

In the pre-test we found that the knowledge of multipurpose health workers regarding body mechanics and patient handling was poor to average because of which the patient suffered with various physical problem such as backache but after the planned teaching program me i.e. post-test the knowledge of MPHW was found to be improved from demographical data and it was properly understood that use of proper body mechanics reduced risk of injury to the musculoskeletal system and also facilitates body movement allowing physical mobility without muscle strain and excessive use of muscle energy.

Conclusion:

The conclusion drawn from the present study is that the planned teaching program me provided to the multipurpose healthcare workers had a great impact on their knowledge regarding body mechanics and patient handling. The teaching and demonstration of body mechanics is very much important to maintain the quality of patient care by health workers to avoid body injuries.

NURSING IMPLICATIONS

Nursing Practice:

MPHW had not special teachings and demonstrations about body mechanics and handling of patient, so nurses need do repeatedly teaching, demonstration and supervisor while doing such practices.

Nursing education:

Present study - Results emphasis that nurse educator must include teaching and demonstration of body mechanics and handling of patient

Nursing research:

Nurse researcher will conducts, uses and shares this results to nursing students and nursing staff as skill development of supportive staff.

Nursing administration:

Nurse administrator organises in-service activities on such topic for supporting staff she supervises to

supporting staffs while assisting to nursing staff in patient care.

Recommendations

Keeping in view the findings of the present study, the following recommendations are made for further study:

1. A similar study can be conducted on a larger population of MPHWS for generalization of the finding.
2. A study can be conducted to assess the factors contributing towards the improper use of body mechanics in MPHWS.
3. A comparative study may be conducted to evaluate the effectiveness of SIM (self instruction module) versus effectiveness of VAD (Video assisted Teaching) on the similar problem.

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